

(1) Publication number: **0 599 653 A3**

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 93309434.4

(22) Date of filing: 25.11.93

61) Int. CI.⁵: **H04M 9/00**, H04M 1/60,

H03G 7/00

30 Priority: 26.11.92 JP 317030/92

(43) Date of publication of application : 01.06.94 Bulletin 94/22

Designated Contracting States :
 DE FR GB IT NL SE

(88) Date of deferred publication of search report: 07.12.94 Bulletin 94/49

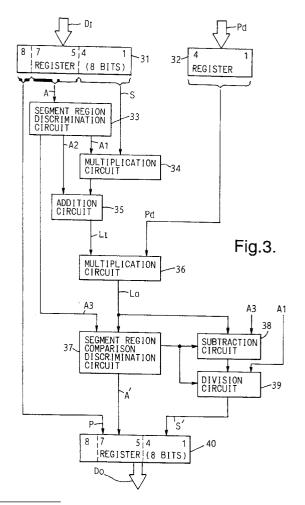
71) Applicant : NEC CORPORATION 7-1, Shiba 5-chome Minato-ku Tokyo (JP) (72) Inventor: Honda, Toshio, c/o NEC Corporation 7-1, Shiba 5-chome, Minato-ku Tokyo (JP)

(74) Representative : Cozens, Paul Dennis et al Mathys & Squire 10 Fleet Street London EC4Y 1AY (GB)

(54) Digital sound level control in a telephone system.

A digital sound level control apparatus for adjusting the reception sound level from all telephone circuits to a substantially fixed level comprises region discrimination circuit (33) for discriminating PCM input data signal (D_I) from a PCM conversion section, including a segment coder for compressing and decompressing a digital audio signal, among intrinsic variation signal (A₁), basic normalization level signal (A₂) and coding threshold value (A₃), multiplication circuit (34) for outputting input level signal (L_I) of 12 bits, addition circuit (35), register (32) holding pad multiplication value (Pd) corresponding to a reception circuit, another multiplication circuit (36) for multiplying input level value (L_I) by pad multiplication value (P_d) to output output level signal (Lo) for outputting sound by a predetermined sound level, and comparison region discrimination circuit (37), subtraction circuit (38), division circuit (39) and register (40) for regenerating an 8-bit digital signal from output level signal (Lo).

A method of providing digital sound level control is also disclosed.





EUROPEAN SEARCH REPORT

Application Number EP 93 30 9434

ategory	Citation of document with indication of relevant passages	on, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)	
х	GB-A-2 215 944 (IWATSU * abstract * * page 61, line 8 - page figures 9A-9I *		1-6	H04M9/00 H04M1/60 H03G7/00	
A	US-A-3 752 970 (AARON E * the whole document *	T AL)	2-4,6		
A	US-A-5 070 524 (MANO) * the whole document *	- 	1-6		
				TECHNICAL FIELDS SEARCHED (Int.Cl.5) HO4M HO3G	
	The present search report has been o			- Francisco	
	Place of search	Date of completion of the search 9 September 199	<u>a</u> 0	Examiner 'Reilly, D	
Y: A:t	THE HAGUE CATEGORY OF CITED DOCUMENTS particularly relevant if taken alone particularly relevant if combined with another focument of the same category technological background nor-written disclosure intermediate document	T: theory or princ E: earlier patent after the filing D: document cite L: document cite	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document		